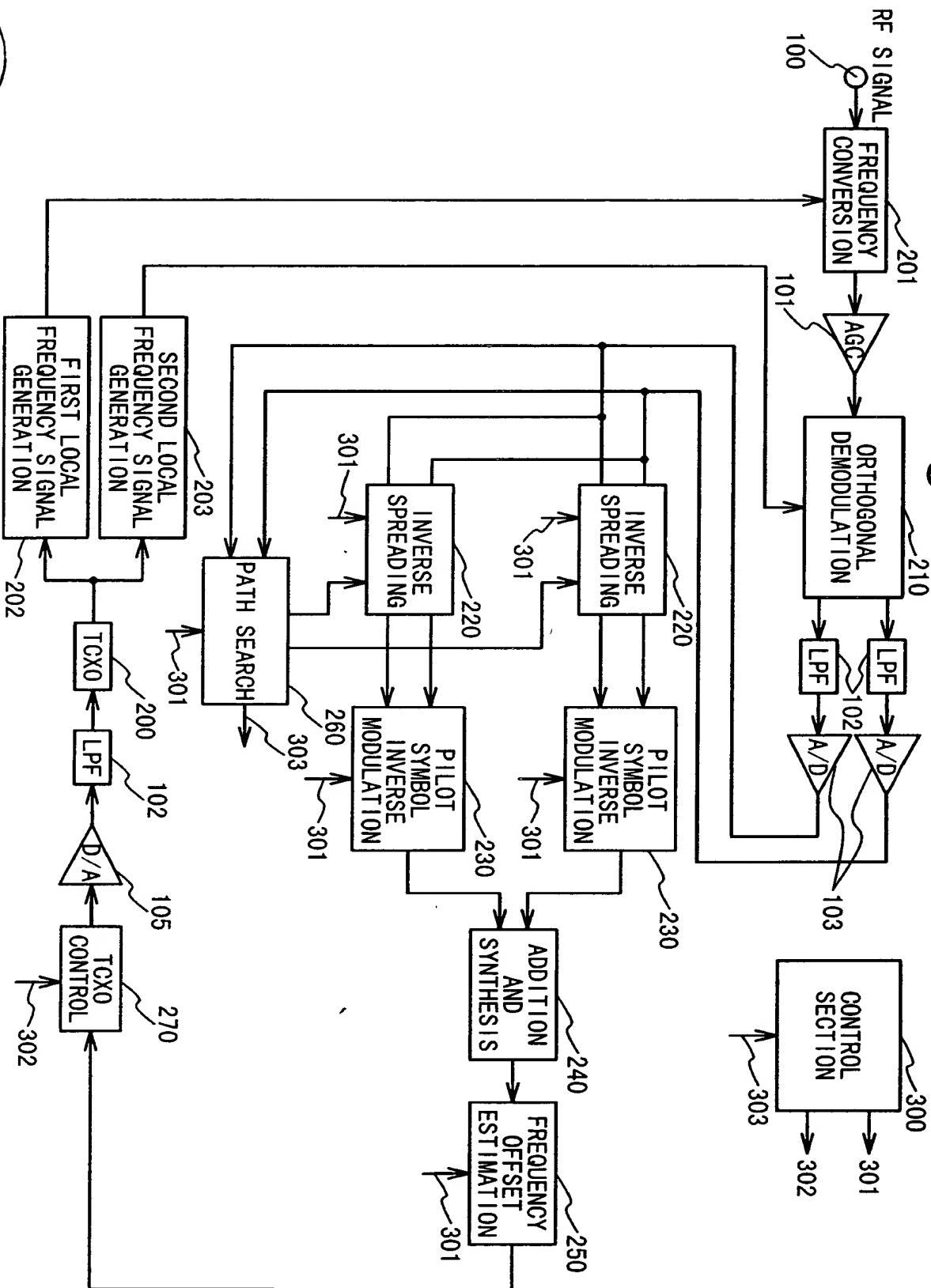
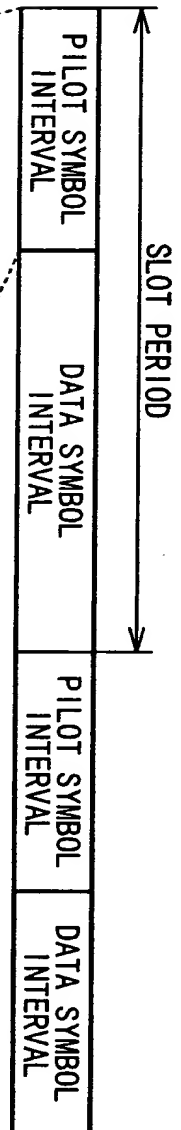


# Fig. 1 PRIOR ART



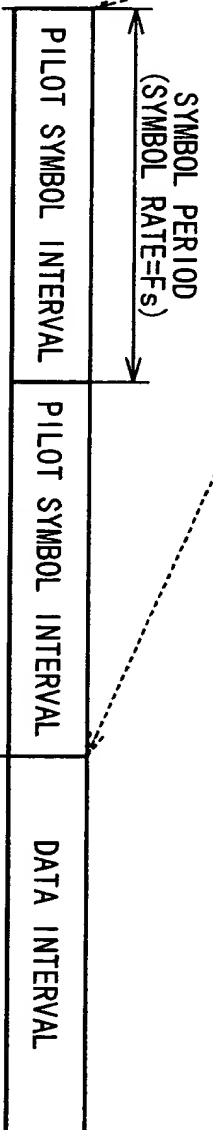
# Fig. 2A PRIOR ART

ESTIMATED  
FRAME FORMAT



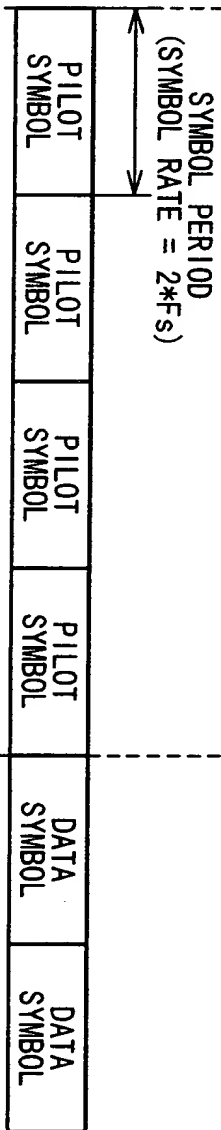
# Fig. 2B PRIOR ART

SYMBOL AFTER  
INVERSE SPREADING  
(SYMBOL RATE =  $F_s$ )



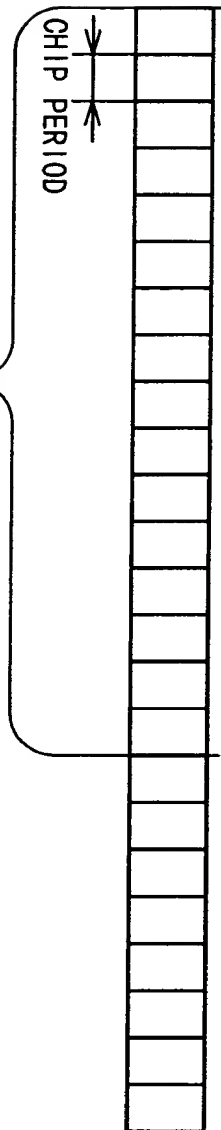
# Fig. 2C PRIOR ART

SYMBOL AFTER  
INVERSE SPREADING  
(SYMBOL RATE =  $2 \cdot F_s$ )

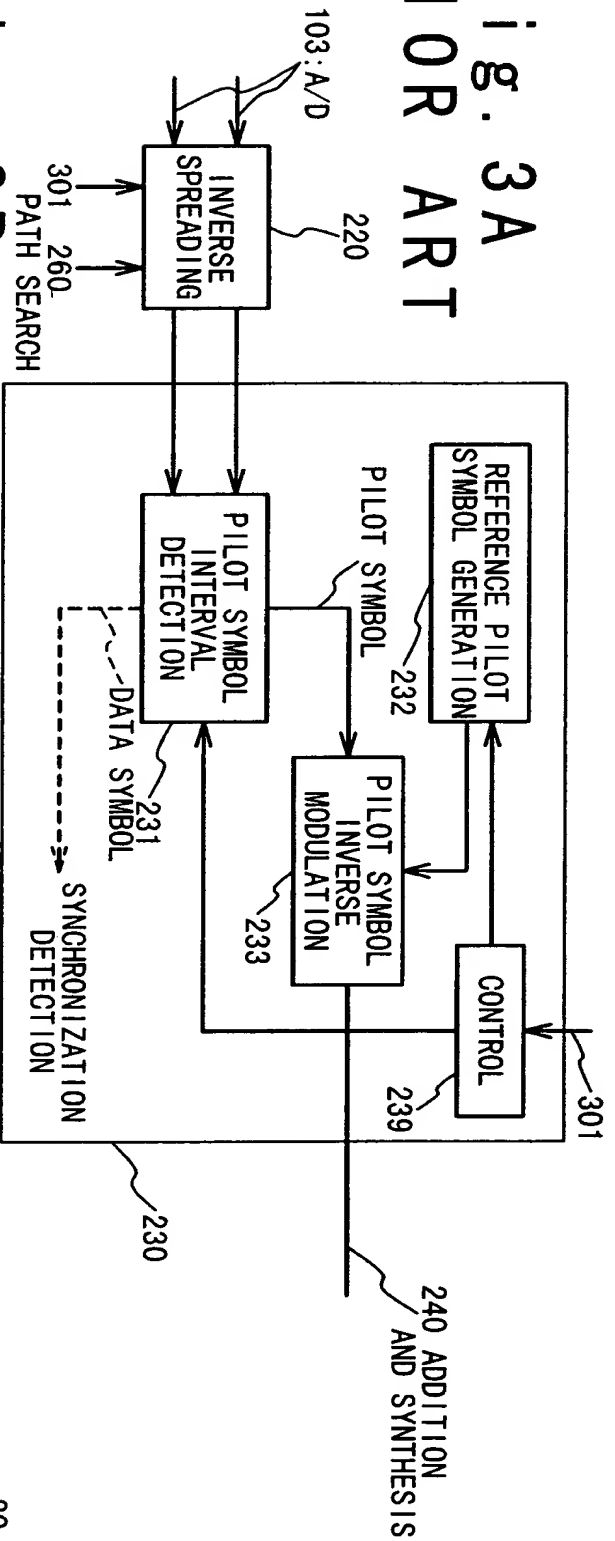


# Fig. 2D PRIOR ART

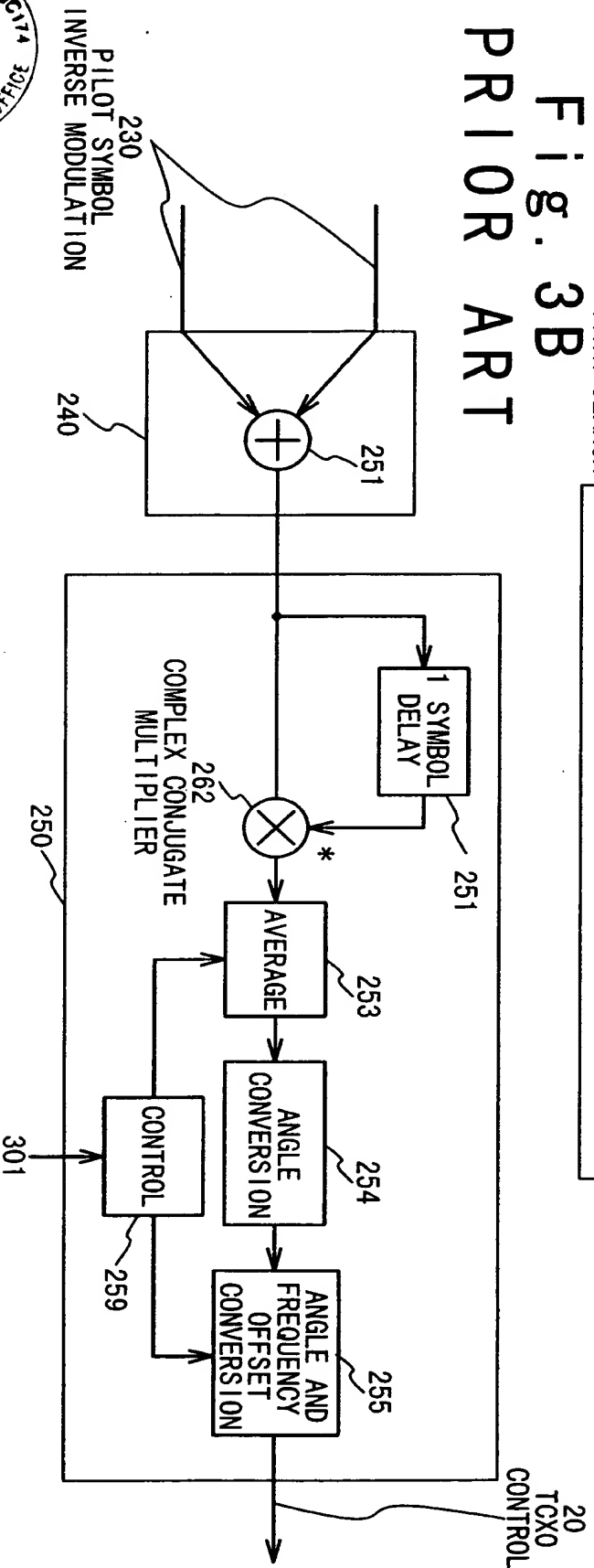
SPREAD SYMBOL



# Fig. 3A PRIOR ART



# Fig. 3B PRIOR ART

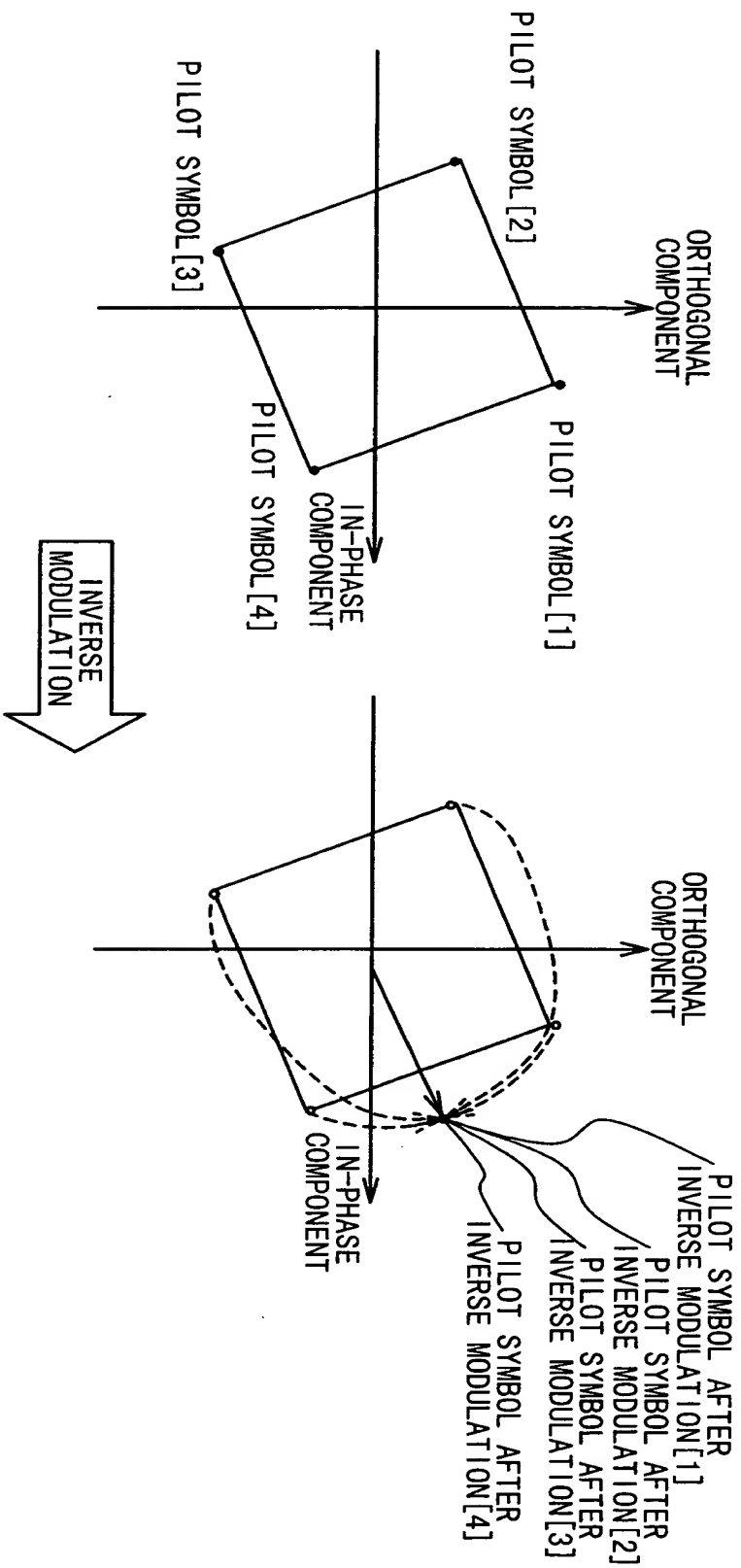


# Fig. 4A

# Fig. 4B

# PRIOR ART

# PRIOR ART

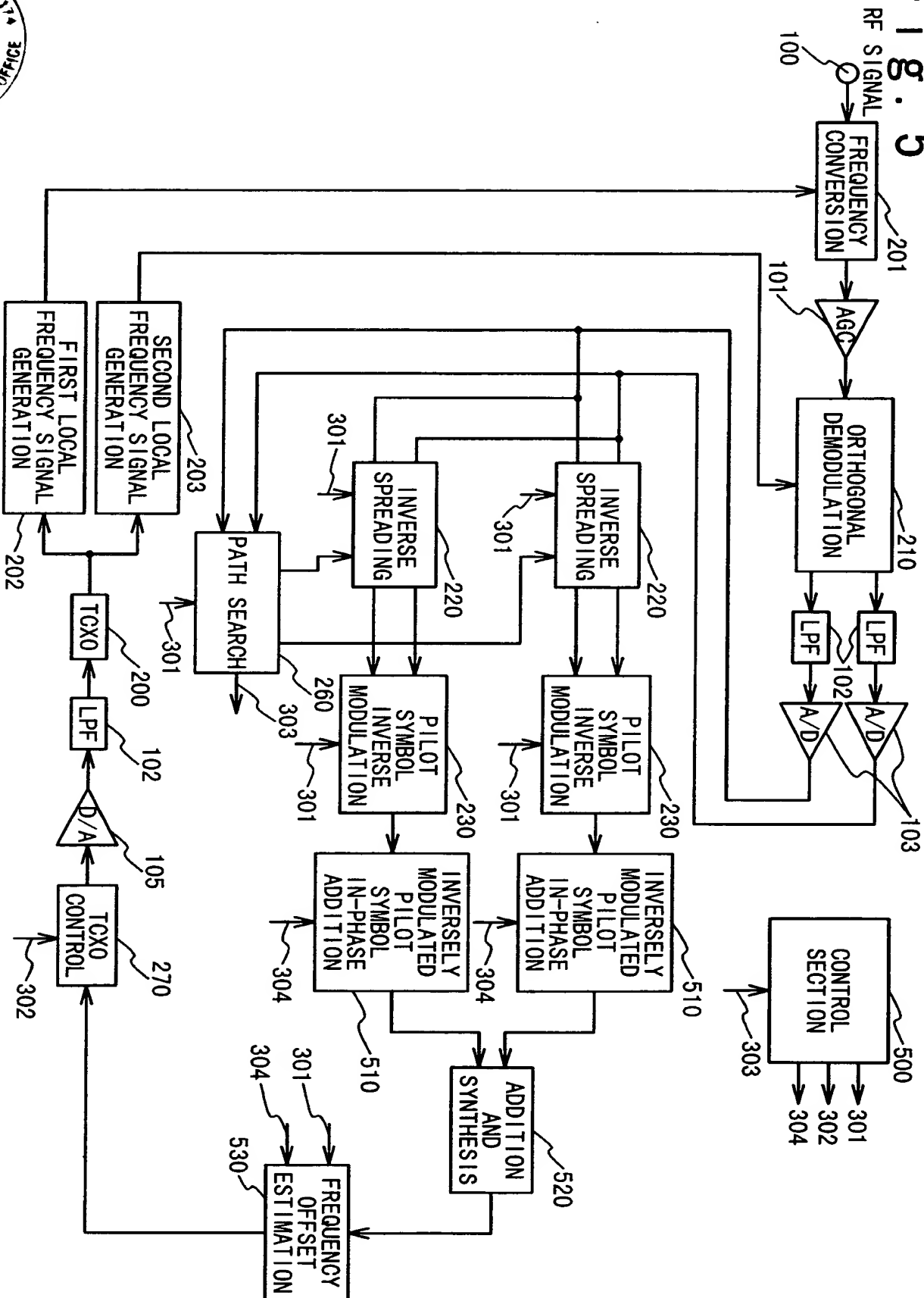


RECEIVED PILOT SYMBOL

INVERSE MODULATION



# Fig. 5



# Fig. 6

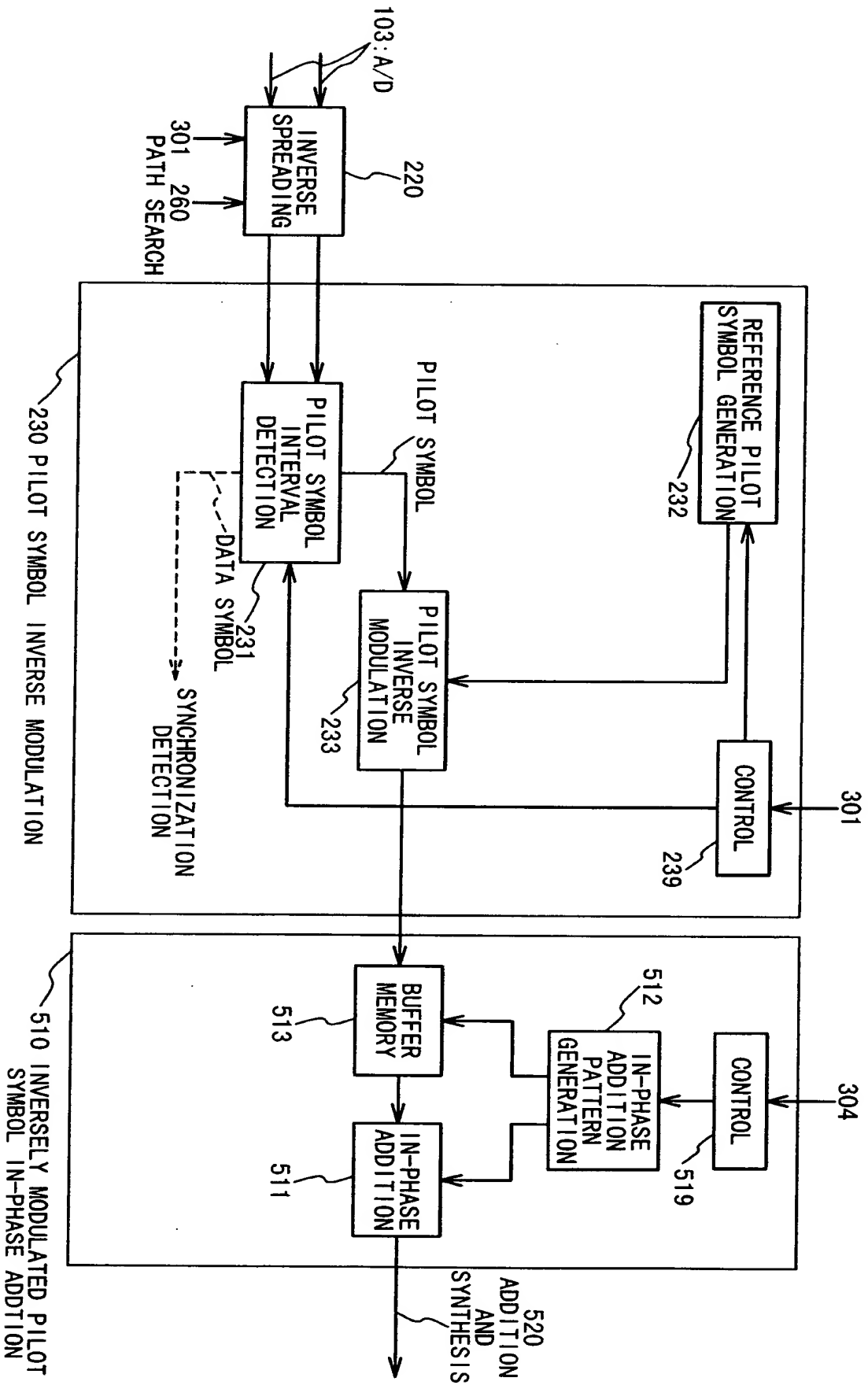
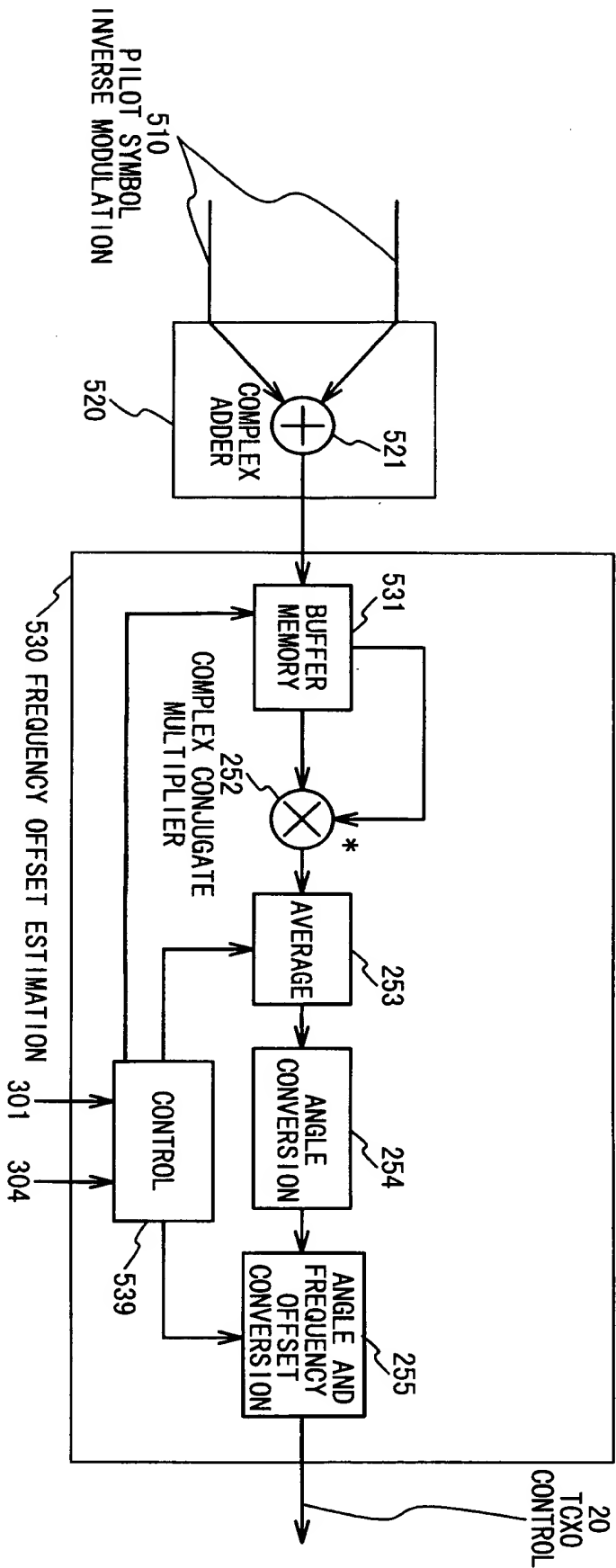


Fig. 7



SYMBOL PERIOD  
=  $1/F_s$

Fig. 8A

(SYMBOL RATE =  $F_s$ )

Fig. 8B

IN-PHASE ADDITION  
RATE =  $F_s$  (CONVENT.)

Fig. 8D

IN-PHASE ADDITION  
RATE =  $F_s/2$

Fig. 8E

IN-PHASE ADDITION  
RATE =  $F_s/2$

